

Appl. N .: 09/740,419
Amdt. dated January 23, 2004
Reply to Office action of November 17, 2003

REMARKS/ARGUMENTS

Applicants received the Office Action dated November 17, 2003, in which the Examiner allowed claims 22 and 23, indicated claims 5, 7-10, 16 and 18-21 to be allowable if rewritten in independent form and rejected all remaining claims (claims 1-4, 6, 11-15 and 17) as obvious over Tran (U.S. Pat. No. 5,875,324) in view of Nair (U.S. Pat. No. 5,890,013). Based on the arguments and amendments contained herein, Applicants believe all claims to be in condition for allowance.

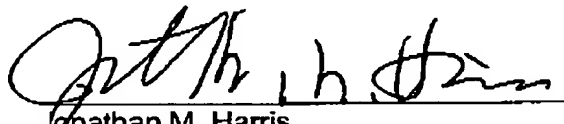
In claim 1, the processor's branch predictor comprises a "multi-way branch prediction array." Further, the claimed processor includes "bank control logic coupled to said prediction array "to ensure that two accesses to said prediction array in the same cycle do not conflict." The Examiner identified several instances in Tran as allegedly teaching these claimed features. See e.g., Tran Fig. 2 element 255, Fig. 52, and various portions of cols. 189-191. These references in Tran, however, appear to have nothing at all to do with branch prediction much less a "multi-way branch prediction array" or "bank control logic" to "ensure that two accesses to said prediction array in the same cycle do not conflict." As the Examiner is no doubt aware, branch prediction relates to the idea of predicting the outcome of a branch instruction before that instruction is actually executed and completed. The Examiner used the Nair reference for allegedly teaching single-ported memory banks. Without regard to the correctness of the Examiner's use of Nair, the cited art (both Nair and Tran) appears to be devoid of any teaching or suggestion of the above limitations. At least for these reasons, claim 1 and claims 2-11 are allowable over the art of record.

Applicants amend independent claim 12 to ensure that the claim is read in the context of branch prediction. Specifically, the prediction array is a "branch prediction array and the claimed "accesses" are "branch prediction" accesses. Because the cited art is unrelated to branch prediction as required in claimed 12, claim 12 and dependent claims 13-21 are allowable at least for that reason.

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Applicants respectfully request that a timely Notice of Allowance be issued in this case. If any fees or time extensions are inadvertently omitted or if any fees have been overpaid, please appropriately charge or credit those fees to Hewlett-Packard Company Deposit Account Number 08-2025 and enter any time extension(s) necessary to prevent this case from being abandoned.

Respectfully submitted,



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